

Journal of Oceanography

Volume 54 (1998)

Contents

Number 1

A. Suzuki: Combined Effects of Photosynthesis and Calcification on the Partial Pressure of Carbon Dioxide in Seawater	1
T. Yanuma and Y. Tsuji: Observation of Edge Waves Trapped on the Continental Shelf in the Vicinity of Makurazaki Harbor, Kyushu, Japan	9
T. Toyota and T. Nakashima: Comparison of the Effects of Water-Soluble (EDTA) and Particle (Chelex-100) Synthetic Ligands on the Growth of Phytoplankton Population in the Disphotic Zone Seawater	19
T. Senju, N. Asano, M. Matsuyama and T. Ishimaru: Intrusion Events of the Intermediate Oyashio Water into Sagami Bay, Japan	29
J. Takeuchi, N. Honda, Y. Morikawa, T. Koike and Y. Nagata: Bifurcation Current along the Southwest Coast of the Kii Peninsula	45
C.-S. Chern and J. Wang: A Numerical Study of the Summertime Flow around the Luzon Strait	53
S. Montani, P. Magni, M. Shimamoto, N. Abe and K. Okutani: The Effect of a Tidal Cycle on the Dynamics of Nutrients in a Tidal Estuary in the Seto Inland Sea, Japan	65
S. Mizuno, H. Noguchi and Y. Kimura: A Pair of Langmuir Cells in Two Laboratory Tanks (II) On Generation Mechanism	77
F. Sakaida, D. Egusa and H. Kawamura: The Behavior and the Role of the Anti-Cyclonic Eddy in the Kuroshio Large Meander Development	101
H. Uchida, S. Imawaki and J.-H. Hu: Comparison of Kuroshio Surface Velocities Derived from Satellite Altimeter and Drifting Buoy Data	115

Number 2

T. Hashimoto and H. Takeoka: Analysis of Primary Production in the Seto Inland Sea, Japan, Using a Simple Ecosystem Model	123
X.-H. Zhu, A. Kaneko, N. Gohda, H. Inaba, K. Kutsuwada and M.-H. Radenac: Observation of Mixed Rossby-Gravity Waves in the Western Equatorial Pacific	133
T. Yanagi and T. Takao: Clockwise Phase Propagation of Semi-Diurnal Tides in the Gulf of Thailand	143
H. Yasuda: An Analysis of Horizontal Dispersion Due to the Drift Current with an Ekman Layer	151
S. Kizu: Systematic Errors in Estimation of Insolation by Empirical Formulas	165
M. Utsumi, Y. Nojiri, N. Ytow and H. Seki: Dynamics of Attached Bacteria at the Water-Sediment Interface in a Mesotrophic Swampy Bog of Japan	179
P. C. Chu, C. Fan and W. Cai: P-Vector Inverse Method Evaluated Using the Modular Ocean Model (MOM)	185

Short Contribution

- K. Furuya, M. Hayashi and Y. Yabushita: HPLC Determination of Phytoplankton Pigments Using N,N-Dimethylformamide 199

Number 3

- T. Usui, I. Koike and N. Ogura: Tidal Effect on Dynamics of Pore Water Nitrate in Intertidal Sediment of a Eutrophic Estuary 205
- Y. Yuan, A. Kaneko, J. Su, X. Zhu, Y. Liu, N. Gohda and H. Chen: The Kuroshio East of Taiwan and in the East China Sea and the Currents East of Ryukyu Islands during Early Summer of 1996 217
- I. Ueki, K. Kutsuwada, H. Inaba and A. Kaneko: Short-Term Variabilities of Upper Ocean Current in the Warm Pool Region during TOGA/COARE IOP 227
- T. Naganuma, M. Kyo, T. Ueki, K. Takeda and J. Ishibashi: A New, Automatic Hydrothermal Fluid Sampler Using a Shape-Memory Alloy 241
- M. Kubota and H. Yokota: Construction of Surface Wind Stress Fields with High Temporal Resolution Using ERS-1 Scatterometer Data 247
- S. Sainz-Trápaga and T. Sugimoto: Spreading of Warm Water from the Kuroshio Extension into the Perturbed Area 257
- P. C. Chu, Y. Chen and S. Lu: Temporal and Spatial Variabilities of Japan Sea Surface Temperature and Atmospheric Forcings 273

Number 4

- K. Tada, K. Monaka, M. Morishita and T. Hashimoto: Standing Stocks and Production Rates of Phytoplankton and Abundance of Bacteria in the Seto Inland Sea, Japan 285
- Y. Kitade, M. Matsuyama, S. Iwata and I. Watabe: SDP and LP Fluctuations Observed along the Coast of Sagami Bay 297
- K. Tada, M. Tada and Y. Maita: Dissolved Free Amino Acids in Coastal Seawater Using a Modified Fluorometric Method 313
- T. Watai, M. Kikuchi and T. Nakazawa: Temporal Variations of Surface Oceanic and Atmospheric CO₂ Fugacity and Total Dissolved Inorganic Carbon in the Northwestern North Pacific 323
- H. Yakushiji and J. Kanda: Determination of Experimentally Enriched ¹⁵N in Nitrate Nitrogen Based on an Improved Method of Azo Dye Formation 337
- K. E. Kenyon: Capillary Waves Understood by an Elementary Method 343
- P. C. Chu, Y. Chen and S. Lu: Wind-Driven South China Sea Deep Basin Warm-Core/Cool-Core Eddies 347
- C.-R. Wu, P.-T. Shaw and S.-Y. Chao: Seasonal and Interannual Variations in the Velocity Field of the South China Sea 361

Short Contribution

- K. Mizuno and T. Watanabe: Preliminary Results of in-situ XCTD/CTD Comparison Test ... 373

Number 5

T. Saino: Foreword	381
H. Kawamura and The OCTS Team: OCTS Mission Overview	383
M. Shimada, H. Oaku, Y. Mitomi, H. Murakami, A. Mukaida, Y. Nakamura, J. Ishizaka, H. Kawamura, T. Tanaka, M. Kishino and H. Fukushima: Calibration and Validation of the Ocean Color Version-3 Product from ADEOS OCTS	401
H. Fukushima, A. Higurashi, Y. Mitomi, T. Nakajima, T. Noguchi, T. Tanaka and M. Toratani: Correction of Atmospheric Effect on ADEOS/OCTS Ocean Color Data: Algorithm Description and Evaluation of Its Performance	417
M. Kishino, T. Ishimaru, K. Furuya, T. Oishi and K. Kawasaki: In-Water Algorithms for ADEOS/OCTS	431
F. Sakaida, M. Moriyama, H. Murakami, H. Oaku, Y. Mitomi, A. Mukaida and H. Kawamura: The Sea Surface Temperature Product Algorithm of the Ocean Color and Temperature Scanner (OCTS) and Its Accuracy	437
K. Kutsuwada: Impact of Wind/Wind-Stress Field in the North Pacific Constructed by ADEOS/NSCAT Data	443
H. Kawamura, S. Tanahashi and T. Takahashi: Estimation of Insolation over the Pacific Ocean off the Sanriku Coast	457
Y. Toba and H. Murakami: Unusual Behavior of the Kuroshio Current System from Winter 1996 to Summer 1997 Revealed by ADEOS-OCTS and Other Data—Suggestion of Topographically Forced Alternating-Jet Instability	465
D. Inagake and S. Saitoh: Description of the Oceanographic Condition off Sanriku, Northwestern Pacific, and Its Relation to Spring Bloom Detected by the Ocean Color and Temperature Scanner (OCTS) Images	479
S. Saitoh, D. Inagake, K. Sasaoka, J. Ishizaka, Y. Nakame and T. Saino: Satellite and Ship Observations of Kuroshio Warm-Core Ring 93A off Sanriku, Northwestern North Pacific, in Spring 1997	495
T. Kameda and S. Matsumura: Chlorophyll Biomass off Sanriku, Northwestern Pacific, Estimated by Ocean Color and Temperature Scanner (OCTS) and a Vertical Distribution Model	509
K. Suzuki, M. Kishino, K. Sasaoka, S. Saitoh and T. Saino: Chlorophyll-Specific Absorption Coefficients and Pigments of Phytoplankton off Sanriku, Northwestern North Pacific ...	517
H. Kasai, H. Saito and A. Tsuda: Estimation of Standing Stock of Chlorophyll <i>a</i> and Primary Production from Remote-Sensed Ocean Color in the Oyashio Region, the Western Subarctic Pacific, during the Spring Bloom in 1997	527
A. Shiromoto, S. Hashimoto and T. Murakami: Primary Productivity and Solar Radiation off Sanriku in May 1997	539
K. Furuya, O. Hasegawa, T. Yoshikawa and S. Taguchi: Photosynthesis-Irradiance Relationship of Phytoplankton and Primary Production in the Vicinity of Kuroshio Warm Core Ring in Spring	545
J. Ishizaka: Spatial Distribution of Primary Production off Sanriku, Northwestern Pacific, during Spring Estimated by Ocean Color and Temperature Scanner (OCTS)	553
M. Waku and K. Furuya: Primary Production and Community Respiration in a Warm Streamer Associated with Kuroshio Warm Core Ring in Spring	565
S. Taguchi and T. Saino: Net Zooplankton and the Biological Pump off Sanriku, Japan	573

T. Saino, S. Shang, Y. Mino, K. Suzuki, H. Nomura, S. Saitoh, H. Miyake, T. Masuzawa and K. Harada: Short Term Variability of Particle Fluxes and Its Relation to Variability in Sea Surface Temperature and Chlorophyll <i>a</i> Field Detected by Ocean Color and Temperature Scanner (OCTS) off Sanriku, Northwestern North Pacific in the Spring of 1997	583
K. Sasaki, T. Ono, K. Tanaka, K. Kawasaki and H. Saito: Variation of the Partial Pressure of CO ₂ in Surface Water from Kuroshio to Oyashio and the Relation between Environmental Factors and the Partial Pressure at 144°E off Sanriku, Northwestern North Pacific in May, 1997	593

Number 6

E. Oka and M. Kawabe: Characteristics of Variations of Water Properties and Density Structure around the Kuroshio in the East China Sea	605
I. Kudo and K. Matsunaga: Behavior of Cu, Ni and Cd during Nutrient Depletion in a Spring Bloom in Funka Bay	619
M. Minakawa and Y. Watanabe: Aluminum in the East China Sea and Okinawa Trough, Marginal Sea Areas of the Western North Pacific	629
K. Ueno: A Derivation of the Scaling Law, the Power Law and the Scaling Relation for Fetch- Limited Wind Waves Using the Renormalization Group Theory	641
X. Guo and T. Yanagi: Three-Dimensional Structure of Tidal Current in the East China Sea and the Yellow Sea	651
J. Takahashi and A. Masuda: Mechanisms of the Southward Translation of Meddies	669
T. Ono, I. Yasuda, H. Narita and S. Tsunogai: Chemical Alteration of Waters in the Kuroshio/ Oyashio Interfrontal Zone	681